

ABSTRACT

A sealant composition for use in sealing solid oxide fuel cells is provided which comprises a glass component which comprises a mixture of alkali-free inorganic oxides, and an optional filler component dispersed in the glass component, said filler component being up to 40% by weight of the composition. The glass component can include, on a mole basis, 20 to 50 % BaO, 1 to 10% Y₂O₃, 5 to 20% B₂O₃, 10 to 30% SiO₂, 3 to 35% MgO, 2 to 20% CaO, 1 to 10% ZnO, and 0 to 5% ZrO₂, and exemplary filler components include zirconia, alumina, barium titanate, strontium titanate, and combinations thereof.